

## REMARKS

The Restriction Requirement Office Action asserts that the pending claims contain improper Markush group. In support of this objection, the Office Action cites MPEP 803.02 and *In re Weber*, 580 F.2d 455, 198 USPQ 328 (CCPA 1978).

The relevant section of the MPEP reads, "... it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention. *In re Harnish*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention exists where compounds included within a Markush group (1) share a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility."

Applicants submit that the pending claims do not lack unity of invention in view of the above-cited MPEP passage, and thus the Markush group in the amended claims is not improper. First of all, all recited polypeptides in the pending claims share a common utility – the ability to stimulate the production of an N-CAM or L1 isoform in a neuronal cell. Secondly, all these polypeptides share a substantial structural feature – the C-terminal six- or seven-Cys skeleton structure, which is recited in the claim and disclosed as being essential to the utility. Thus, by definition, unity of invention exists for all polypeptides included within the Markush group.

Furthermore, even if the Examiner were to maintain the original restriction requirement, Applicants submit that the restriction requirement pertains to restriction of the Markush group. Pursuant to MPEP 803.02, "If the members of the Markush group are sufficiently few in number or so closely related that a search and examination of the entire claim can be made without serious burden, the examiner must examine all the members of the Markush group in the claim on the merits, even though they are directed to independent and distinct inventions. In such a case, the examiner will not ... require restriction." Since the pending claims contain only a few Markush group members, the Examiner must examine all members without restriction, regardless of whether such individual members are directed to independent and distinct inventions.

Even if a restriction is still imposed, the same section of MPEP states that "...where two or more of the members are so unrelated and diverse ... the examiner may require a provisional election of a single species prior to examination on the merits ... Following election, the Markush-

...type claim will be examined fully with respect to the elected species and further to the extent necessary to determine patentability...[S]hould no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. ... The prior art search will be extended to the extent necessary to determine patentability of the Markush-type claim.” (emphasis added). Therefore, in the case where no prior art is found during the initial search of the *provisionally* elected Markush species (as is the case during the previous round of examination), the Examiner must extend the search to other initially *nonelected* polypeptide species, to the extent necessary to determine patentability.

Thus, reconsideration and withdrawal of this objection is respectfully requested.

Regarding the Group election, Applicants submit that the inventions of the two Groups are closely related, so that a search of claims in one Group with necessarily entails a search of claims in the other Group. In addition, the number of claims in each Group is sufficiently small, so that a search of all claims simultaneously would not impose an undue burden on the Examiner. Pursuant to MPEP803, “If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.” Therefore, Applicants respectfully request reconsideration and withdrawal of the restriction requirement between Groups I and II.

The Office Action also requires Applicants to elect a single (morphogen) polypeptide selected from A) – R) as recited in the Office Action. Applicants hereby elect, for search purposes only, polypeptide B) (a polypeptide having the amino acid sequence of the C-terminal seven-cysteine skeleton of human OP-1) with traverse.

As the Office Action admits, there are no provisions in MPEP 806.05 for inventive groups directed to different products. Polypeptides A) – R) are Markush group species. For search purposes, the election and examination of Markush group species should be conducted pursuant to MPEP 803.02. Specifically, Applicants respectfully point out that the search of the Markush-type claim must be extended to non-elected species should no prior art be found that anticipates or renders obvious the elected species (MPEP 803.02).

Applicants also traverse the species election because many of the morphogens recited in A) – R) fall within the scope of the elected species. Particularly, searches for species A) and B) would be almost identical, and that search would have included searching many, if not most of the other species listed in the Office Action. Therefore, Applicants respectfully request reconsideration and withdrawal of the species election.

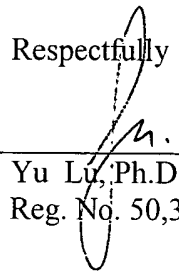
### CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that the pending claims are in condition for allowance. Early and favorable reconsideration is respectfully solicited. The Examiner may address any questions raised by this submission to the undersigned at 617-951-7000. Should an extension of time be required, Applicants hereby petition for same and request that the extension fee and any other fee required for timely consideration of this submission be charged to **Deposit Account No. 18-1945**.

Respectfully Submitted,

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